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The Role Of The Pediatric Nurse In Discharge Planning; Identifying Gaps In Sri Lanka

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Abstract

Background: *Pediatric discharge planning is a complex process, and that nurses need lengthy preparations. Role confusion among nurses will disrupt the smooth planning of the discharge. In Sri Lanka, although there is a possibility of reducing health costs through effective discharge planning led by pediatric nurses, it is questionable whether Sri Lankan nurses have clarified their role in this process.*

Method: *This systematic review was conducted to map the different roles of nurses in the pediatric discharge planning process. Electronic databases of PubMed and CINAHL were searched for peer-reviewed journal articles among the pediatric population from 2005-2019, using the keywords such as discharge planning, pediatric nurse, care transitions, transitional care, and Sri Lankan nurse.*

Results: *Articles that resulted in the word combination 'Discharge planning and pediatric nursing (n=329) were used for screening. Two hundred and forty articles out of the nursing scope and sixty articles that do not describe an apparent nursing involvement in the discharge process were excluded, based on abstract review and full-text review, respectively. Sixteen studies were included in the final review. Few literature was found on the topic among Sri Lankan pediatric population. Four main categories of nurses' roles were identified with the thematic analysis: discharge educator, discharge collaborator, post-discharge care coordinator, and family counselor.*

Conclusion: *In Sri Lanka, no such defined roles of a nurse have been established yet in the discharge planning of pediatric patients. These roles may help nurses carry out discharge planning effectively, and future studies are needed on this topic in Sri Lanka.*

Keywords: discharge planning; nurses' role; pediatric nurse; Sri Lankan nursing

INTRODUCTION

The discharge planning concept originated in The United States in the 1960s provides safe care transitions from hospitals to homes or another health care facility using multidisciplinary approaches ([Lin et al., 2012](#)). Discharge planning

has become an integral part of the care coordination of the patients due to the fact that proper discharge planning and adequate discharge readiness reduce the length of stay at the hospital, readmission rates within 30 days of hospital discharge, health costs, and post-discharge

complications ([Jack et al., 2009](#); [Weiss et al., 2014](#); [et al., 2011](#)). Nurses played an essential role in the discharge planning process and included the concept in their care planning since the 1990s ([Lin et al., 2012](#)). Some studies identified nurses as “transitional coaches” to manage discharge planning activities ([Rosenbek & Coleman, 2013](#)). Nursing care is pivotal not only in the discharge process but also in the post-discharge phase ([Aued et al., 2019](#); [Naylor et al., 1999](#); [Popejoy et al., 2012](#)). Discontinuity from the inpatient care causes post-discharge complications in 50% of the adults discharged from hospitals because discharging from hospitals is a vulnerable situation for patients and their families ([Kripalani et al., 2007](#)). Productive nursing care, which includes discharge readiness assessment, has decreased the readmission rates of adult patients ([Yakusheva et al., 2019](#)). Adult studies have found that nurses integrate various discharge planning activities during their care provision ([Foust, 2007](#)) and the effectiveness of such activities ([Naylor et al., 1999](#); [Zhu et al., 2015](#)). Attitudes of the family affect the efficacy of discharge planning ([Chang et al., 2016](#); [Koné et al., 2018](#)), and medical team collaboration is essential to prevent premature discharge ([Ofoma et al., 2018](#)).

Although there are still limited studies about discharge planning, the discharge planning interventions led by nurses in the pediatric setup have proved their effectiveness in maintaining care continuity and providing support for families. Such interventions include family conferences, follow-up visits, phone calls, and combining with community care ([Auger et al., 2018](#); [Baker et al., 2016](#); [Pickler et al., 2016](#)). Parents have concerns about healthcare delivery by health professionals, including nurses, in their child’s care plan ([Brenner et al., 2015](#)). The health care team should always focus on the caregiver or the family along with the patient care. Providing adequate discharge information to the caregiver can reduce the complications during home care ([Driscoll, 2000](#)). In the pediatric setup, the family plays an essential role in the discharge plan as the family is constant in the child’s life and the child’s sole caregiver. Pediatric patients’ discharge from the hospital is stressful for both the child and the family, including siblings. Families need time for adapting to the new reality; therefore, the pediatric discharge process requires

time and lengthy preparations ([Bowles et al., 2016](#); [Brenner et al., 2015](#); [Purdy et al., 2015](#)).

Nurses have frequent interactions in patients’ hospitality compared to other multidisciplinary team roles ([Watts & Gardner 2005](#)). Inadequate clarifications of the multidisciplinary team and confusion of their roles have been identified as barriers to effective discharge planning ([Wong et al., 2011](#)).

Being a developing country where the government provides health for every citizen at free cost, the massive health-related goal is a burden for Sri Lanka. Interventions that will lead to the reduction of health costs and readmission rates are in utmost need. In Sri Lanka, although nurses involve in the discharge process, their role has not been clarified well due to the lack of conceptualized guidance and very few engaging in the specific role ([Coleman et al., 2005](#); [Hettiarachchi & Amarasena, 2014](#); [Senarath et al., 2007](#)). This review mainly focuses on mapping the different roles of the nurse in the discharge planning process in the pediatric setup.

METHODS

This literature search was done in the electronic databases PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL) through Hinari Research in Health. The search was performed in May 2020 using the search terms; “Discharge planning, care transition, discharge planning guidance, discharge planning and nursing, discharge planning and pediatric nursing, discharge planning in Sri Lanka”.

The study included Peer-reviewed journal articles published from 2005 to 2019 in Pediatric setups. Full-text English articles were refined. Quantitative studies, qualitative studies, and mixed-method studies were included. Reviews, case reports, studies on medication trials, microbiological studies, studies conducted in the Emergency Departments, studies that describe only post-surgical management and rehabilitation were excluded.

Articles that describe nurses’ involvement in the discharge process or post-discharge phase were included in the final review. Reference lists of each

article were screened manually. The contents of the articles about studies on Emergency departments were again screened carefully to clarify whether they describe a clear nursing role in the discharge process or post-discharge phase.

PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines were used for data screening. The articles resulting from the search term "Discharge planning and pediatric nursing" were exported to Mendeley Desktop. Their titles and abstracts were screened to identify those reporting on original research, followed by a full-text screen of the remaining articles to determine which articles to include in the study. Duplicate articles were removed. Due to the lack of recent literature on this topic in Sri Lanka, internet websites were searched for additional information. Both authors followed this method to screen the articles and check for gaps and discrepancies in their search results. Figure 1, the PRISMA flow chart, represents the method of literature searching and article selection.

Since the study was confined to peer-reviewed journal articles, no special quality appraisal tools or guidelines were used to measure the quality of the articles. Data from the finally selected articles were extracted into an excel spreadsheet. Then data was systematically organized, compared, and contrasted by two authors to identify nurses' roles in the discharge planning from the contents of the studies using thematic analysis by the General Inductive Approach. The inductive analysis allows the origination of concepts and themes through deeply reading the raw data (Thomas, 2006).

Finally, the authors read selected articles several times separately, and text segments that explain the nurses' involvement in the discharge process were highlighted and expressed in the narrative form. The highlighted text was exchanged among the authors. Core meanings evident in the text relevant to nurses' involvement in the discharge process were identified by two authors. The highlighted text segments provided a foundation to recognized categories. Sub-themes and themes were developed based on the deep analytical thinking on the relationship among the categories.

RESULTS

Of the 16 studies, 11 studies were conducted in particular health care units (Arad et al., 2007; Dellenmark-Blom & Wigert 2014; Ekim & Ocakci 2016; Gallotto et al., 2019; Góes & Cabral 2017; Lerret et al., 2017; Meerlo-Habing et al., 2009; Pfeil et al., 2007; Schuh et al., 2016; Wells et al., 2017; Smith et al., 2018), 4 in acute medical setups (Auger et al., 2018; Holland et al., 2014, 2015; Weiss et al., 2017), and one in an Emergency Department (Uspal et al., 2016). Of the 16 studies, five studies included nurses' involvement in the post-discharge period (Auger, Shah, et al. 2018; Lerret et al. 2017; Meerlo-Habing et al., 2009; Pfeil et al., 2007; Wells et al., 2017), eight studies included about nurses' involvement before the hospital discharge (Arad et al., 2007; Gallotto et al., 2019; Góes & Cabral 2017; Holland et al., 2014, 2015; Schuh et al., 2016; Weiss et al., 2017; Smith et al., 2018), and 2 studies described both pre-discharge and post-discharge involvement of the nurse (Dellenmark-Blom & Wigert 2014; Ekim & Ocakci 2016). The summary of the finally selected articles has been represented in table 1.

Four main categories were identified during the process of thematic analysis. Sub-categories were generated from the evidence identified under the main categories. The summary of the categories is shown in table 2.

1. Discharge Educator

Nurses play a significant role as educators in the discharge planning process, both in inpatient and post-discharge care. This education follows the family system approach filling the parents' knowledge gaps and covers the following subcategories.

1.1 Medications and Red flags

Educating the child, family, or caregiver about medication dose, timing and side effects, and the complications that may arise that need prompt medical assistance will help ensure the child's safety in the post-discharge period. 'Road to home' program by Smith (Smith et al., 2018) includes a tool kit that helps to address medication issues and emergencies after discharge and discharge education curriculums may include emergency management kits for the caregiver (Gallotto et al., 2019).

1.2. New skills for the caregiver

The child may need complex treatment plans even after hospital discharge. Thus, it is a must to ensure that the caregivers can demonstrate the skills necessary to continue the care provided at the hospital after the discharge ([Schuh et al., 2016](#); [Wells et al., 2017](#); [Smith et al., 2018](#)). Nurses should have a keen knowledge and skills on teaching methods such as explanation, observation, execution, supervision, collaboration, and assessment to provide those skills for the caregivers. These skills include technical, medication administration, nutrition, and hygiene ([Gallotto et al., 2019](#); [Góes & Cabral, 2017](#)). Learning new skills that help to care for their child by themselves will increase the parents' confidence ([Dellenmark-Blom & Wigert, 2014](#)).

1.3 Life after discharge

Parents and children perceive that having a clear understanding of life after discharge will easily help them achieve expected goals ([Weiss et al., 2017](#)). Nurses can provide discharge teaching about life after discharge to carry out proper discharge planning ([Holland et al., 2015](#); [Lerret et al., 2017](#)). Furthermore, parents and clinicians see nurses as the best professionals who can provide the necessary instructions regarding life at home once the child is discharged from the hospital ([Góes & Cabral, 2017](#)). Pre-discharge education should focus on the community services available for the family to seek help after discharge when needed ([Schuh et al., 2016](#)).

1.4 Written information

Providing written information through handbooks, booklets, flyers during the educational sessions will improve nurse and parent satisfaction ([Ekim & Ocakci 2016](#); [Gallotto et al., 2019](#); [Smith et al., 2018](#)). The nurse is responsible for ensuring whether the family or the caregiver has understood the provided written information ([Pfeil et al., 2007](#)).

2. Discharge collaborator

Collaboration between nurse and wide range of parties were identified during the review of evidence. The main category was again divided into the following subcategories.

2.1 Social and community workers

Nurses are in the frontline to mediate care between family and the social workers (Smith et al., 2018). Public health Nurses, like Home visit nurses, play an essential role while interacting with necessary officials in order to receive assistance for the family. These include utilizing financial and social resources available in the community to fulfill post-discharge care needs ([Wells et al., 2017](#)).

2.2 In-hospital medical team

Efficient collaboration with health providers inside the hospital will allow more opportunities for nurses to involve in the patient discharge planning, which increases patient and family satisfaction ([Auger et al., 2018](#); [Góes & Cabral 2017](#); [Holland et al., 2015](#); [Uspal et al., 2016](#); [Smith et al., 2018](#)). This collaborative work will work towards speeding up the recovery of the child ([Wells et al., 2017](#)). The nurse should effectively communicate with necessary health professionals to fill knowledge gaps of the patient and family ([Gallotto et al., 2019](#)).

2.3 Family and the caregiver

Parental self-efficacy perception ([Ekim & Ocakci 2016](#)), satisfaction ([Arad et al., 2007](#); [Uspal et al., 2016](#); [Smith et al., 2018](#)), experience with home care ([Dellenmark-Blom & Wigert, 2014](#); [Lerret et al., 2017](#)), perception on care received ([Pfeil et al. 2007](#)), care giver's comfort and needs ([Gallotto et al., 2019](#); [Góes & Cabral, 2017](#)) have been assessed because every discharge planning intervention needs collaboration with a parent, caregiver or the family of the child ([Weiss et al., 2017](#)). Assessment of discharge readiness of the patient and family is an essential aspect of the discharge process, which needs interactions with them throughout the stay ([Schuh et al., 2016](#)). Collaboration between nurses and the family will help nurses identify the parenting roles' strengths and weaknesses and prepare interventions to address the issues, including sibling needs ([Dellenmark-Blom & Wigert, 2014](#); [Lerret et al., 2017](#)).

3. Post-discharge care coordinator

Nurses carry out post-discharge care coordination to ensure the care continuity of the child under two subcategories.

3.1 Home visiting

Home visits led by nurses allow them to assess the child's home environment, the child's safety at home, the child's physical well-being and make

necessary modifications collaborating with the family members ([Ekim & Ocakci, 2016](#); [Pfeil et al., 2007](#)). These visits will help nurses identify the family's social, emotional, and financial issues and refer them to necessary professionals. Home visiting is an opportunity to evaluate the discharge education provided at the hospital and renew parental knowledge on the child's treatment course ([Meerlo-Habing et al., 2009](#)). Since family is a constant in the child's life, being at home with the family will help the child emotionally; therefore, early discharge can be implemented if the nurses are allowed for home visiting once the child's discharge ([Pfeil et al., 2007](#); [Wells et al., 2017](#)). Parents may feel uncomfortable in the common discharge education sessions at the hospital ([Smith et al., 2018](#)) but feel more comfortable at their home being more open to the nurse disclosing their concerns ([Dellenmark-Blom & Wigert, 2014](#); [Pfeil et al., 2007](#)). The feeling of being cared for even after hospital discharge will enhance parental emotional stability ([Dellenmark-Blom & Wigert, 2014](#); [Lerret et al., 2017](#)).

3.2 Telephone counseling

Frequent contact with the nurse and the parents after discharge will increase nurse and parent satisfaction ([Pfeil et al., 2007](#)). These contacts allow the family to discuss their problems and resolve them with the nurse. Every discharge planning model should include counseling sessions to ensure continuity and the quality of the care provided ([Ekim & Ocakci 2016](#); [Wells et al. 2017](#)). Telephone call follow-ups will help families to return to their regular routine easily ([Auger et al., 2018](#); [Pfeil et al., 2007](#)) and help health professionals to evaluate the effectiveness of their discharge planning interventions ([Arad et al., 2007](#)).

4. Family counselor

Nurses function as supporters for the family to identify their concerns and solutions, implying a counselor role. This role can be described under two sub-categories.

4.1 Emotional support of parents

Parents are facing a variety of challenges once the child is again at home after discharge, including balancing the care of the child and sibling needs, establishing a new routine, lack of sleep, fatigue,

anxiety, fear of child's future, attending school needs of the child and follow up appointments ([Dellenmark-Blom & Wigert, 2014](#); [Lerret et al., 2017](#); [Meerlo-Habing et al., 2009](#)). The nurse can help them anticipate these issues in the discharge education process and find solutions early ([Ekim & Ocakci, 2016](#); [Gallotto et al., 2019](#); [Turrell et al., 2005](#); [Smith et al., 2018](#)). Then the families will feel safe and prepared for the encountered problems. The reassurance gained from the nurse in the post-discharge period also reduces parental stress ([Arad et al., 2007](#); [Dellenmark-Blom & Wigert, 2014](#); [Góes & Cabral, 2017](#); [Pfeil et al., 2007](#); [Schuh et al., 2016](#); [Wells et al., 2017](#)).

4.2 Siblings' needs

Siblings may feel neglected and less attentive with a sick child at home ([Lerret et al. 2017](#)). Nurses can involve in such situations to increase support from other family members or finding a home care nurse for the family ([Wells et al., 2017](#); [Smith et al., 2018](#)). During the assessment of discharge readiness, siblings' readiness also should be assessed ([Schuh et al., 2016](#)).

DISCUSSION

As previously discussed, a transition from hospital to home will be an anxiety-provoking situation for the sick child, parents, and other family members ([Purdy et al., 2015](#)). However, with proper transitional care, it can be turned into a situation where the clients see it positively, again more than a loss and an opportunity more than a crisis ([Chick & Meleis 1986](#)). This systematic review has identified different nursing roles in the pediatric discharge planning process, bringing positive outcomes for transitional care, and needs to be incorporated with the Sri Lankan context. Out of the studies that we have selected, most studies have been conducted in the USA, where discharge planning emerged. Studies in Asian countries were hardly found during the literature search on the topic.

If the nurses cannot provide adequate information and reassurance for the patients and family, their uncertainty will lead to unnecessary utilization of health care facilities. Parents' health literacy is essential in the disease prevention of children ([Sanders et al., 2009](#)). The discharge educator role

was found in most of the studies, which implies the need for more time for nurses for educational sessions for the patient and the family. An educator nurse should have teaching skills and sound knowledge of educational theories, knowledge of family-centered care approaches, and related practices. In Sri Lanka, nurses' shortage of nurses and increased patient turn-over rate have led to a situation where nurses work under stressful conditions with a heavy workload ([De Alwis & Shammika., 2015](#); [De Silva & Rolls., 2010](#)). It is a challenge for Sri Lankan nurses to spare adequate time for discharge teaching in such a situation. Although the nursing training schools have included the patient teaching methods in their curriculum, there will be a gap between the nurses' knowledge and the practice when it comes to the actual practice.

The middle-range theory of transitions developed by Meleis et al. ([Chick & Meleis 1986](#)) describes that the community in which an individual belongs and its resources will significantly affect his/her transition from hospital to home or another health care facility. Therefore, nurses involved in discharge planning should collaborate with necessary parties in the community where the child and the family belong. These may include welfare services, school officials, religious leaders, co-workers of the parents, and relatives of the family. The nursing-role as a collaborator implies the need for communication skills for nurses. During discharge planning, communication with the community care sector is essential. Nurses should have sound knowledge of the available facilities and contact methods in the community. Maintaining better continuity of care, communication, and interaction between the health professionals is essential ([Page et al., 2016](#)). This collaboration should not be confined to the community outside the hospital but also with the persons involved in the child's care during the hospital stay.

Our study also found that nurses could function as counselors and post-discharge care coordinators. These skills can be incorporated into nurses and other health professionals ([Maguire & Faulkner, 1988](#)). As we found, nurses can coordinate post-discharge care through follow-up home visits and telephone counseling. New nursing specialties such as family care nurse, public health nurse home

visiting nurse have emerged along with the discharge planning nurse (DPN) profession due to the increasing need for adequate post-discharge care. Care coordination through telephone counseling might be a challenge for nurses in some communities due to the lack of access to the facility and lack of literacy of the clients. In previous literature, the nurse's counseling role is limited to school nurses and community care nurses ([Alizadeh et al., 2011](#)). Since counseling is a broad area of practice with ethical concerns, necessary skills should be possessed by nurses to provide quality care. Therefore, these aspects should be included in the nursing curriculums and professional training to allow nurses to anticipate the issues and find solutions.

In terms of the sibling issue, they will have unmet needs such as communicating information, maintaining their usual daily routine, and activities with having a sick child at the hospital. They may undergo severe emotional crisis with loneliness, guilt, and jealousy where nurses should intervene the supportive acts ([Wilkins & Woodgate, 2016](#)). Nurses have a responsibility to help the siblings to master their ability to get accustomed to the new situation. The opportunity to engage in the care of the sick child during the stay and after the discharge will help siblings understand the reality of the transition they have to undergo with the discharge of the sick child. Discharge care should strengthen the family bonds and cohesion as the family relationships have been identified as an indicator for a successful transition ([Chiang et al., 2012](#)).

In recent years, with the increasing medical needs of the pediatric population, Sri Lanka has a massive burden in providing health care facilities ([Ministry of Health., 2019](#)). Therefore interventions which lead to reducing health cost while providing efficient care is in need. With the existing knowledge, it is obvious that proper discharge support will help to achieve this goal. Sri Lanka public hospitals do not include a separate department for discharge planning and the nursing specialty 'discharge planning nurse' still has not been well established in Sri Lanka. World Health Organization (WHO) has identified neonatal, infant, and under-five children's mortality rates as crucial health indicators of Sri Lanka ([Ministry of Health., 2019](#)), implying the importance of children's health.

Long-term complications that may arise physically, mentally, and socially in children should be prevented as health issues in childhood lead to health problems in the later years of life affecting the future development of a country. In Sri Lanka, although pediatric nurses do not have a conceptualized guidance on discharge planning and discharge support, nurses function as information providers for the family. However, due to busy ward rounds and inadequate beds, discharge planning has neglected or unobservable in the ward setups. Only special care units provide follow up care, and written information for the discharging patients. Although specialties like diabetic education nursing officers (DENOs) have been established, those roles have been limited to adult care setup. There is no much evidence of studies on post discharge health care utilization of the pediatric patients in Sri Lanka. Home visits by nurses have been limited to public health sector and palliative care sector in Sri Lanka and due to the lack of adequate nursing staff in hospital setup interactions between nurse and the family have been limited. Family centered care practices are visible in some instances such as having one parent by child's side throughout the hospital stay, siblings visiting policies and attending the mother and the child at home by public health midwives. Therefore, Sri Lanka pediatric nurses may have knowledge on the importance of implementing discharge planning for pediatric patients but due to the role confusion and lack of guidelines, implementing the process in the real practice may have been a challenge for them.

There are two limitations of this study. Studies published only in English in two databases were considered, which may not account for studies on other languages. Moreover, grey literature was not considered.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

According to our knowledge, very few recent literature is available on discharge planning support by Sri Lankan pediatric nurses. Therefore, more studies are needed on the topic in Sri Lanka. Policymakers should take the discharge planning process to their consideration to reduce health costs and care burden. In Sri Lanka, special pediatric nursing training is implemented only at a post-basic level under the supervision of the Ministry of

Health. Thus, establishing the Discharge Planning Nurse profession in the pediatric setup is essential to widen the post-graduate educational opportunities for pediatric nurses. Our study has identified various nursing roles in the pediatric discharge planning process. These identified roles can be incorporated into the discharge planning interventions, models, and guidelines for Sri Lanka pediatric nurses in the future. It will give rise to new nursing trends and specialties in the Sri Lanka nursing profession.

DECLARATION OF CONFLICTING INTERESTS

The author(s) declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

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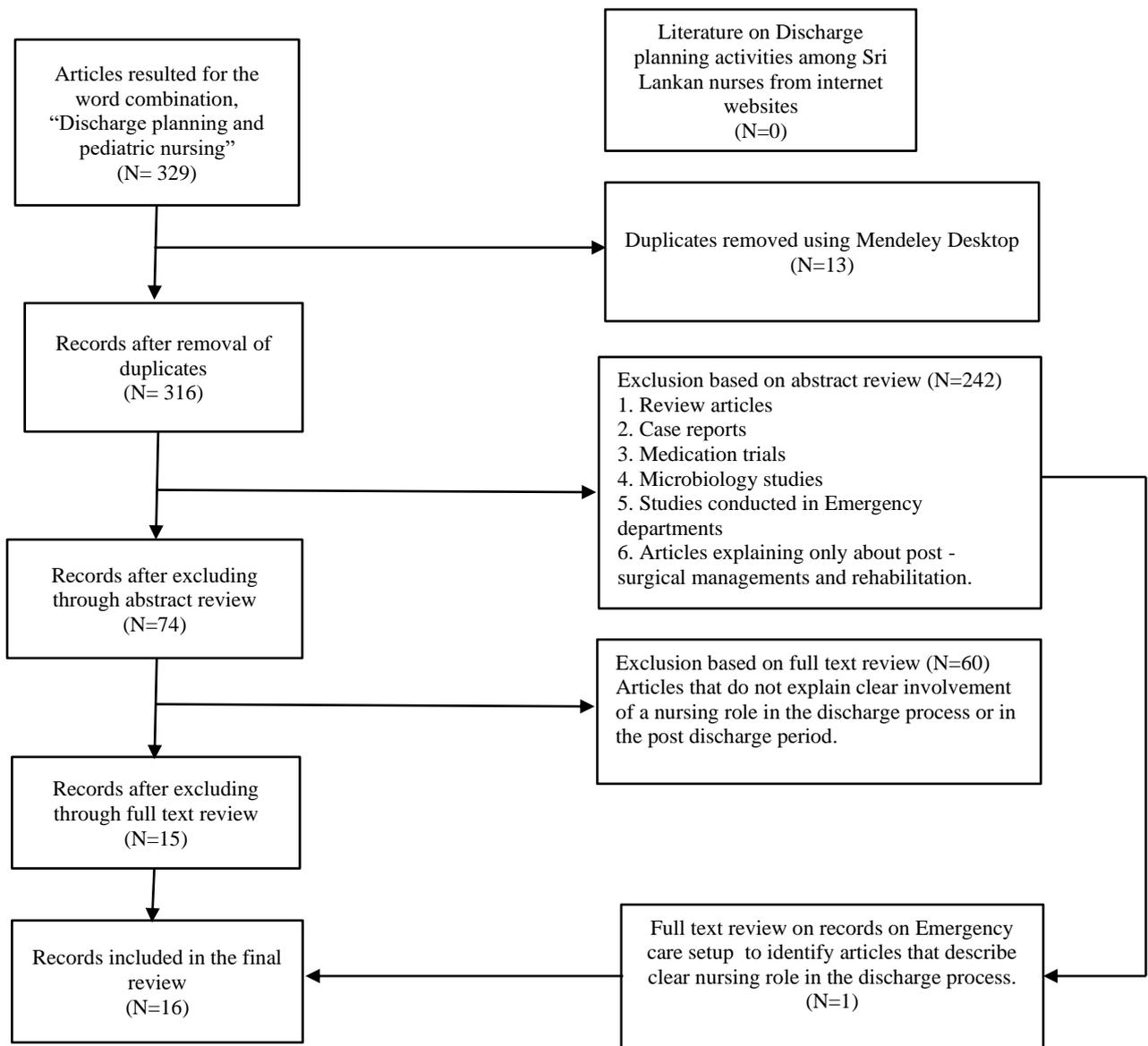


Figure 1. PRISMA Flow Chart

Table 1. Summary of the Articles Included in the Final Review

Author and Year	Country of study	Study setting	Study design	Study respondents	data collection strategies	Involvement of the Nurses
Wells et.al 2017	USA	A children's hospital	A prospective pilot study-Mixed method	Nurses, In-patient team, Parents	Post-discharge phone call interviews for the families. Semi-structured, one-hour in-person interviews with care team members.	Home visits by hospital nurses who regularly assist with hospital and discharge care. Post-discharge education, discovering problems, and assessment of home environment during visits. The nurse made decisions and coordinate care with the necessary services. Nurses made follow-up phone calls to the patient's family and the care team members to resolve any

						problem identified during the home visit.
Schuh et.al 2016	Canada	Tertiary care Pediatric Cardiology Unit	An observational descriptive study- quantitative method	Parents or guardians	Self-reported questionnaire for parents or guardians of the child. A pre-discharge questionnaire containing information on the child's treatment course, demographics, and Hospital Discharge scale assesses readiness for discharge. The post- discharge questionnaire sought information on a post-discharge treatment course, care transition measures, and quality of discharge teaching scale.	Providing discharge education, providing appropriate skills for parents that may need to care for the child at home, emotional support for the parents, and adequate information on community services that the child may need after hospital discharge.
Arad et.al 2007	Israel	The Department of Neonatology	Comparison study- a qualitative method	Mothers of singleton newborn infants.	Telephone interviews	Information delivery at discharge by a staff nurse, including written instructions.
Ekim & Ocakci 2016	Turkey	Hospital- based pediatric respiratory clinic	A Quasi- experimental study- quantitative method	Parents of children who are newly diagnosed with asthma	Face to face interviews Follow-up phone calls and home visits	Assessing discharge needs of the parent and the child. Developing a discharge plan. Assessing home environment and planning for necessary modifications. Asthma management education. Phone call interviews and counseling. Home visiting.
Holland et.al 2014	USA	Pediatric Acute care nursing unit	Predictive correlation study- mixed method	Parent/guar dian of the child	Structured data collection forms were used in the interviews by the investigators and record interviews	Nurse clinicians have been identified as experts to evaluate subjects to determine early referral for discharge planning
Holland et al. 2015	USA	Pediatric Acute care setting	Quasi experimental non- equivalent comparison group design- Quantitative method	Staff registered nurse, clinical nurse specialist, parents	Assessments of the parent/guardian by the nurses using face-to-face interviews.	Assessment of current and post-discharge needs of the patient and family. Discharge teaching. Getting the family ready for home care. Participating in discharge planning rounds.
Meerlo- Habing et.al 2009	Netherla nd	Neonatal Unit of a large district	Case-control study-	Mothers of preterm infants	Parents were interviewed six months after the	Follow-up visits by a pediatric nurse specialist.

		general hospital	quantitative method		delivery via telephone calls by a pediatric nurse.	
Pfeil et.al 2007	United Kingdom	Department of children, University hospital	Cohort control study- Mixed method	Families of post-uncomplicated appendectomy children	Approximately ten days after discharge, the researcher contacted each family via telephone. The semi-structured interviews considered the child's recovery and physical well-being as well as open questions concerning the families' experiences of the time following discharge	Nurses who monitored the child's recovery after uncomplicated appendectomy visited the family within 24 hours after discharge. Keep in contact with the family after discharge via telephone calls.
F. Goes and Cabral 2017	Brazil	A public pediatric teaching hospital	Descriptive Qualitative method	Children, family members, health professionals	Semi-structured interviews and medical record analysis, creativity and sensitivity dynamics	Nurses educate and help families gaining nursing competencies for home care of children with special care needs. This teaching is based on demonstrating necessary skills Transmitting the responsibility of procedural care needed by the child to the family
Dellenmark-Blom & Wigert 2014	Sweden	Neonatal home care setting	An interview study with a phenomenological hermeneutic approach.- qualitative method	Parents	Open-ended interviews	Advising parents on feeding, growth checks, and support of parent-child interactions during the hospital stay. Families have regular home visits by the Pediatric Nurse Specialist (PNS) every week.
Auger et.al 2018	USA	Tertiary care children's hospital	Randomized-controlled trial- a qualitative method	Family	Telephone survey and analyses of hospital administrative documents by a researcher	Ensure child's recovery, reassure parents, discharge instructions and post-discharge red flags via telephone conversation Follow-up for complications that may need further medical care.
Lerret, Johnson and Haglund 2017	USA	Pediatric transplant hospitals	The qualitative component of a more extensive mixed methods longitudinal study	Parents	Telephone call interviews with open-ended questions	Teaching new skills needed. Addressing psychosocial issues.
Wilson Smith, Sachse and Perry	USA	Urban academic	Descriptive survey-	Nurses, Families	Post-discharge telephone calls for families,	Discharge education. Preparing the family for post-discharge home care

2018		medical center	Quantitative method		Feedback from caregivers, nurses satisfaction survey	Providing tool kits needed for the care of the child at home.
Gallotto et.al 2019	USA	Children's hospital	Descriptive study	Home parenteral nutrition nurses Bedside nurses	Interviews and discussions.	Educating the parents about skills needed for home parenteral nutrition administration. Bedside nurses involve in practicing and demonstrating the skills.
Weiss et.al 2017	USA	Pediatric Academic Medical Center	Quantitative study-secondary analysis of data from a longitudinal pilot study of a family self-management discharge preparation intervention.	Parents	Questionnaire on the day of discharge (Quality of Discharge Teaching Scale; Readiness for Hospital Discharge Scale), at 3 weeks post-discharge (Post-Discharge Coping Difficulty Scale), and from electronic records (readmission, ED visits)	Discharge teaching Assessment of discharge readiness. Family support.
Uspal et.al 2016	USA	Pediatric academic medical center	Used Lean methodology. Retrospective before-and-after analysis completed after process implementation- qualitative method and staff survey	Patients and families	Extraction from the electronic medical record. Additional data on elopement/agitation events, physical restraint use, and security physical intervention events were obtained through an existing security services database maintained for quality improvement purposes	Evaluate mental health patients Provide education to the families

Table 2. Themes Identified Through General Inductive Approach

No	Main Categories	Sub Categories
1	Discharge Educator	Medications and red flags, new skills for the caregiver, life after discharge, written information
2	Discharge Collaborator	Social and community workers, In-hospital medical team, Family and the care-giver
3	Post-discharge care coordinator	Telephone counseling, Home visiting
4	Family counselor	Emotional needs of parents, siblings' needs.